



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2003AL7B

Title: A Molecular Approach to Determine the Origin of Fecal Bacteria in Catoma Creek of the Alabama River Basin

Project Type: Research

Focus Categories: Non Point Pollution, Water Quality, Agriculture

Keywords: Pathogens, Fecal Coliform, Animal Waste, Non-point Source Pollution Control, Water Quality, Watershed Management

Start Date: 03/01/2003

End Date: 02/29/2004

Federal Funds Requested: \$ 25000.00

Matching Funds: \$55117.00

Congressional District: Third

Principal Investigators: Feng, Yucheng

Abstract: Fecal pollution impairs the quality of streams and rivers for recreational use and adversely affects fish and aquatic life. Detection of fecal indicator bacteria such as *Escherichia coli* suggests the presence of potential human pathogens that may pose health risks to humans and threaten the integrity of ecosystems. Determining the source of fecal contamination is necessary to develop effective control strategies. This project will track bacterial non-point source pollution in the Catoma Creek watershed by constructing a rep-PCR DNA fingerprint library from *E. coli* strains isolated from a wide range of human and animal feces samples in Alabama. The data collected will be input into a GIS database that will assist the state in establishing TMDLs for this waterbody

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